Attorney Docket No. CAEP:101US U.S. Patent Application No. 10/056,579

Amendment and Request for Reconsideration dated: January 3, 2005

Response to Final Office Action dated November 2, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) An apparatus for the removal of sand from a metal casting encased

in a sand mold located in an air stream in a thermal sand removal oven comprising:

means to move air through said oven, said means to move air operatively arranged

to move air along said air stream in said thermal sand removal oven, said air stream traversing

said metal casting encased in said sand mold, said air stream recirculating past said means to

move air and said metal casting encased in said sand mold; and

a plurality of sand removal members, said members secured to an inside wall of

said thermal sand removal oven, said members projecting into said recirculating air stream, said

members located in said air stream between said at least casting encased in said sand mold and

said means to move air, and said sand removal members arranged to precipitate sand entrained in

said air stream.

2. (original) The apparatus recited in Claim 1 wherein each said sand removal

member comprises two planar members joined to form a "V" shaped structure, where each

structure includes a vertex, said vertex of said "V" shape pointing generally in the direction of

the air stream.

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3. (original) The apparatus recited in Claim 2 wherein said planar members are

joined at an angle in the range of approximately 30 degrees to approximately 150 degrees, as

measured between the two respective planar members of the "V" shaped structure.

4. (original) The apparatus recited in Claim 2 wherein said planar members are

joined at an angle of approximately 90 degrees, as measured between the two respective planar

members of the "V" shaped structure.

5. (currently amended) An improvement to a thermal sand removal oven comprising:

a plurality of sand removal members, said members secured to an inside wall of

said thermal sand removal oven, said members operatively arranged to project into a

recirculating air stream, said members located in said air stream between at least one metal

casting encased in a sand mold and a device to move air through said oven, and said sand

removal members arranged to precipitate sand entrained in said air stream.

6. (currently amended) An apparatus for the removal of sand from an air stream in a

thermal sand removal oven comprising:

at least one metal casting encased in a sand mold in said thermal sand removal

oven;

a device to move air through said oven, said device operatively arranged to move

air along said air stream in said thermal sand removal oven, said air stream traversing said at

least one metal casting encased in said sand mold, said air stream recirculating past said device

and said at least one metal casting encased in said sand mold; and

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a plurality of sand removal members, said members secured to an inside wall of

said thermal sand removal oven, said members projecting into said recirculating air stream, said

members located in said air stream between said at least one metal casting encased in said sand

mold and said air moving device, and said sand removal members arranged to precipitate sand

entrained in said air stream.

7. (original) The apparatus recited in Claim 6 wherein each said sand removal

member comprises two planar members joined to form a "V" shaped structure, where each

structure includes a vertex, said vertex of said "V" shape pointing generally in the direction of

the air stream.

8. (original) The apparatus recited in Claim 7 wherein said planar members are

joined at an angle in the range of approximately 30 degrees to approximately 150 degrees, as

measured between the two respective planar members of the "V" shaped structure.

9. (original) The apparatus recited in Claim 7 wherein said planar members are

joined at an angle of approximately 90 degrees, as measured between the two respective planar

members of the "V" shaped structure.

10. (currently amended) An apparatus for the removal of sand from a metal casting

containing a sand core located in an air stream in a thermal sand removal oven comprising:

means to move air through said oven, said means to move air operatively arranged

to move air along said air stream in said thermal sand removal oven, said air stream traversing

said at least one metal casting containing said sand core, said air stream recirculating past said

means to move air and said at least one metal casting containing said sand core; and

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a plurality of sand removal members, said members secured to an inside wall of

said thermal sand removal oven, said members projecting into said recirculating air stream, said

members located in said air stream between said at least one metal casting containing said sand

core and said means to move air, and said sand removal members arranged to precipitate sand

entrained in said air stream.

11. (new) The apparatus recited in Claim 1 wherein said sand precipitates

from said air stream by gravity.